

**Abstract**

Device for thermally treating at least one optical waveguide.

A device for thermally treating at least one optical waveguide has a radiation source (3). A first optical system (3, 10) is used to direct a beam (8), emitted by the radiation source, onto the optical waveguide (1, 2) from a first side. The first optical system (10) generates a beam profile (4) whose extent in the transverse direction with respect to a longitudinal axis (LA) of the optical waveguide corresponds to at least twice an optical waveguide diameter (df). The optical waveguide (1, 2) is positioned completely outside a center axis (A) of the beam profile (4) in the transverse direction with respect to the longitudinal axis (LA) of the optical waveguide in the focusing area of the beam. A second optical system (20, 30, 40) which is positioned behind the optical waveguide (1, 2) in the direction of a beam path of the beam, reflects and directs a beam (5), which is transmitted past the side of the optical waveguide, onto the optical waveguide (1, 2) from a second side. The invention makes it possible to provide a simple optical system which directs the radiation from two directions onto the optical waveguide with approximately equal power density.

Figure 3